

## **ABSTRACT**

A cartridge is provided containing sodium bicarbonate in solid form. The cartridge is usable in a hemodialysis machine for continuously producing a buffer solution, which is mixed with another solution to produce a dialysis solution. The  
5 cartridge also contains a solid acid or acid anhydride, or carbon dioxide gas. This has been found to overcome problems caused by a temporary high pH in the dialysis solution during the early stages of a dialysis operation.